

Musical Ontology and the Audibility of Musical Works

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There are compelling reasons to believe that musical works are abstract. However, this hypothesis conflicts with the platitude that musical works are appreciated by means of audition: the things that enter our ear canals and make our eardrums vibrate must be concrete, so how can musical works be listened to if they are abstract? This question constitutes the audibility problem. In this paper, I assess Julian Dodd's elaborate attempt to solve it, and contend that Dodd's attempt is unsuccessful. Then I discuss what I take to be the ideal response to the audibility problem, and show that it ultimately fails. I contend, consequently, that the project of construing musical works as audible is disheartening. Accordingly, in my last section, I will argue the audibility problem may be satisfactorily resolved without ascribing audibility to musical works.

There are two compelling reasons to believe that musical works are abstract. The first is that they are repeatable: they admit of multiple performances and, hence, multiple occurrences. The second is that there seem to be no concrete objects with which they could be identified: scores can be burnt, torn up, or otherwise physically destroyed, but musical works cannot. Musical works are repeatable; performances are not. (Arrau's performance of Beethoven's Waldstein sonata at the Beethovenfest in Bonn in 1971, for instance, could be imitated, and recordings of it can be reproduced; but it happened at a certain place, at a certain time, and it cannot happen again.)

The hypothesis that musical works are abstract, therefore, is quite plausible; however, it clashes with the seemingly platitudinous thought that musical works are ordinarily appreciated by means of audition. The things that stimulate our auditory organs are sounds—namely, spatiotemporally located physical phenomena that are causally related to our perceptions. Abstracta, by contrast, are orthodoxically thought to be causally inert entities that are not located in space–time so they appear to be not at all like the objects that produce auditory experiences. This gives rise to the audibility problem: how can musical works be appreciated by means of audition if they are abstract?

In 2007, Dodd articulated a sophisticated response to this question. In §1, I will argue that Dodd's project of establishing that musical works are audible faces two obstacles of metaphysical order, and there is no promising way for him to surmount them. In §2, I will discuss a hypothetical ideal theory—this identifies musical works with repeatable abstracta, but, by assumption, faces neither of the obstacles faced by Dodd. I will argue that not even this theory fosters the construal of musical works as audible. I contend, consequently, that the project of this construal is not very promising. Accordingly, in §3,

I show that the audibility problem may be satisfactorily resolved without ascribing audibility to musical works.¹

1. The Type/Token Theory

On its standard formulation, the type/token theory states that musical works are types of sound events—types, that is to say, tokened by performances. Wollheim (1980, p. 50) was the first in advancing this view, and Kivy (1983; 1987; 2002, pp. 212–223) endorsed it. A number of authors have afterwards developed more elaborate and, plausibly, explicatively more powerful versions, according to which musical works are not types *simpliciter*, but indicated types (Levinson, 1980; Howell, 2002), normative types (Wolterstorff, 1980; Dodd, 2000; 2002; 2004; 2007; 2008); created types (Walters, 2013), and nested types (Puy, 2019, 2021).

The most thorough of Dodd's defences of the type/token theory comprises a purported solution to the audibility problem (2007, pp. 11–16, 92–94).² Dodd claims that 'it is surely a datum that musical works are things that we can listen to' (2007, p. 12), and that, '[w]hen listening to a performance of a work of music, one thereby listens to the work performed'. He follows earlier type/token theorists in making this claim: according to Levinson, 'musical works ... can be heard in or through their performances' (1980, p. 27, emphasis in the original). Wolterstorff, similarly, states that, 'in listening to a symphony one hears two things at once, the symphony and the performance thereof' (1980, p. 40–41). How we hear a musical work by hearing one of its performances, Dodd maintains, is easily explained by analogy with Quine's deferred ostension (1969, pp. 39–41). According to Quine, it is possible to refer to a type by demonstrating one of its tokens: one can, for instance, point to a letter-token alpha, say 'This is alpha', and successfully refer to the relevant letter type. 'Well', Dodd says, 'as for demonstrative reference, so for perceptibility' (2007, p. 12). Just as we can refer to a letter type by demonstrating one of its letter-tokens, Dodd claims, by hearing a performance of a musical work, we can hear also the type that stands behind it (2007, p. 12).³

To my mind, though, Dodd's claim is nothing more than a stipulation. He gives us no reason to believe that what is true of reference must also be true of perception, and it certainly does not appear to be so. It is clear, for instance, that some things can be referred to which cannot be perceived—for example, the empty set.⁴

1 Not all authors believe that musical works are abstract: some think that they are concrete objects like performances (see, e.g. Moruzzi, 2018) and fusions of performances (see, e.g. Caplan and Matheson, 2006). I will not discuss their proposals here, however, for my aim in this paper is to address the problem of how musical works are appreciated by means of audition if they are abstract.

2 Puy (2019, p. 249) developed Dodd's purported solution to the audibility problem in order to adapt it to his hypothesis of nested types (Puy, 2019; 2021).

3 In a recent paper, Cohen (2022) discusses Dodd's analogy, develops it in a very interesting direction, and argues that, thus developed, the theory has at least two problematic consequences.

4 Even Maddy, who believes that some sets are perceivable, admits that some others, like the empty set, are not (Maddy, 1990, pp. 156–157).

More importantly, Dodd's analogy with deferred ostension fails to address the difficulties of metaphysical order that are involved in the hypothesis that musical works are audible. For one thing, the orthodoxy has it that abstract objects are causally inert (see, e.g. Dummett, 1973, p. 493; Bach, 1987, p. 12; Linsky and Zalta, 1995, p. 252; Balaguer, 2001, p. 1; Van Inwagen, 2007, p. 200; Parsons, 2008, p. 1). If *abstracta* are indeed causally inert, then musical works cannot cause auditory experiences.

Dodd discusses this issue shortly after presenting his Quinean analogy (2007, pp. 13–16). He abides by the orthodoxy in stating that the *relata* of causal relations are events, not objects—neither abstract nor concrete (see, e.g. Davidson, 1963; 1967). Nevertheless, following Bennett (1988, p. 23) and Burgess and Rosen (1997, p. 24), Dodd claims that objects can be correctly said to be causally efficacious in a number of circumstances, nonetheless. After discussing what these circumstances might be, he concludes, with Caplan and Matheson (2004, p. 121), that ‘all we can say is that an object so participates causally in an event by being *appropriately related* to the said event’ (2007, p. 15, emphasis in the original). Naturally, Dodd says, it is up for grabs just when an object holds an appropriate relation to an event in the relevant sense. But, plausibly, such an appropriate relation obtains when the object in question is a type, and the event is one of its tokens (2007, p. 15). If this is correct, then a musical work may be said to exercise causal powers when one of its token sound events exercises causal powers. It follows that if a sound event causes an auditory experience, then the musical work that sound event is a performance of can also be said to be the cause of the auditory experience in question.

Dodd adduces ordinary language data in order to support his contention (2007, pp. 15–16). A film, he maintains, is a type, and its tokens are showing-events. Now suppose that the showing of a film sparked a riot. We have seen that Dodd contends that a type may be said to exercise causal powers where one of its tokens does. If this is right, then, in the hypothetical scenario he has asked us to imagine, not only the showing, but the film itself may be said to have caused the riot. Ordinary language ratifies this result: it would be entirely natural, Dodd notes, to claim that the riot was caused by the film.

However, Juvshik (2018) thinks that Dodd's contention must not be granted. He agrees with Dodd that ordinary language allows us to speak of types as causally efficacious: it allows us to speak, for instance, of films causing riots. ‘But from the fact that we talk a certain way, it does not follow that things are that way’ (2018, p. 812). According to Juvshik, there are good reasons to reject the view that musical works have causal powers: drawing from Kim's exclusion arguments against mental causation (1993; 1998), Juvshik advances an argument from parsimony that states, briefly, that the auditory experiences that we have when we listen to music can be exhaustively explained in terms of the physiological structure of the human auditory capacity as well as the behaviour of the sound waves that constitute performances (2018, pp. 814–816). If this is the case, then there is no explicative work left for musical works to do, and for the sake of parsimony, we should refrain from attributing causal powers to them.

Friedell (2020) tried to vindicate Dodd's contention; however, I do not think he succeeds. Friedell maintains, contra Juvshik, that there *is* a reason to attribute causal powers to musical works, even if our auditory experiences can be fully explained by attributing such powers to performances only—namely, it is intuitively the case that types are causally efficacious. Harriet Beecher Stowe's novel *Uncle Tom's Cabin* (1852), Friedell

says, is an instance of this: it is a type, for it is not located in space–time, and it has multiple occurrences. Yet it is intuitively true that it caused many Americans to support the abolitionist cause. Juvshik, of course, would insist that the fact that this seems intuitively true does not mean that it is true; however, Friedell has more to say. Perhaps, as Juvshik would have it, *Uncle Tom's Cabin* did not cause many Americans to support the abolitionist cause, but, as a matter of fact, many Americans supported the abolitionist cause. If *Uncle Tom's Cabin* did not cause this, what did? The copies of *Uncle Tom's Cabin*, perhaps. Perhaps, that is to say, utterances of (1) should be read not at face value, but as metonymical for (2):

1. *Uncle Tom's Cabin* caused many Americans to support the abolitionist cause.
2. The copies of *Uncle Tom's Cabin* caused many Americans to support the abolitionist cause.

Unfortunately, Friedell says, (1) fails two simple tests for metonymy. Consider:

3. The sax has the flu.

It seems clear that the expression ‘The sax’ in (4) below is to be read not literally, but metonymically: it refers to a saxophonist, not to a sax. Sentence (4), accordingly, passes both of Friedell’s tests for metonymy: (i) it is felicitous to attribute properties to the referent of ‘The sax’ under the assumption that ‘The sax’ is to be read as metonymical; (ii) it is infelicitous to attribute properties to it under the assumption that ‘The sax’ is to be read literally. Witness:

4. The sax has the flu; she will be back next week.
5. The sax has the flu; it is covered in bacteria.

Sentence (4) could only be asserted under the assumption that ‘The sax’ is metonymical for a saxophonist—cf. the pronoun—and it is felicitous. Sentence (5), on the other hand, could only be asserted under the assumption that ‘The sax’ refers to a sax—cf., again, the pronoun—and it is infelicitous. Hence, (3) passes both metonymy tests, just as we would expect. Sentence (1), by contrast, passes neither:

6. *Uncle Tom's Cabin* caused many Americans to support the abolitionist cause; many of them have been lost and will never be found.
7. *Uncle Tom's Cabin* caused many Americans to support the abolitionist cause; it was the most popular novel of the nineteenth century.

It is infelicitous to attribute properties to the referent of ‘*Uncle Tom's Cabin*’ under the assumption that ‘*Uncle Tom's Cabin*’ refers metonymically to the copies; it is felicitous to attribute properties to it under the assumption that ‘*Uncle Tom's Cabin*’ refers to the type. Thus, Friedell concludes, we must conclude that (1) is not metonymical, but literally true, and that types, therefore, are causally efficacious.

I believe, however, that both of Friedell’s tests are flawed. Consider:

8. Mozart has charmed listeners for well over two centuries.

Sentence (8) is evidently metonymical: Mozart, the man, might have been charming, but he was only thirty-five when he died, so he surely did not charm people for more than

two hundred years. It is clear, then, that ‘Mozart’ in (8) refers metonymically to Mozart’s compositions—and yet, the following is infelicitous:

9. Mozart has charmed listeners for well over two centuries; they include over fifty symphonies, and twenty-seven piano concertos.

There are, then, *pace* Friedell, uncontentionally metonymical expressions whose referents cannot be felicitously attributed properties under the assumption that they are indeed metonymical. Now consider (10):

10. I was reading Alfonso Reyes this morning.

Sentence (10), too, is undoubtedly metonymical: the occurrence of ‘Alfonso Reyes’ in this sentence refers not to the man, but to his works. If Friedell’s second test were accurate, we could expect it to be infelicitous to attribute a property to the referent of ‘Alfonso Reyes’ under the assumption that ‘Alfonso Reyes’ is to be read as referring to the man. However, then Friedell’s second test predicts the wrong result, for (11) is entirely felicitous:

11. I was reading Alfonso Reyes this morning. He is becoming one of my favourite essayists.

If my arguments are sound, neither of Friedell’s tests can be trusted to tell metonymical expressions from literal ones. The fact that (1) fails them both, then, is not a reliable indication that (1) is not metonymical. Friedell has thus given us no reason to suppose that (1) is literally true, nor, therefore, that types have causal powers. But then Juvshik is right: given that our auditory experiences can be exhaustively accounted for by attributing causal powers to performances only, there is no reason to suppose that musical works themselves are causally efficacious. By the principle of parsimony, we should refrain from doing so.⁵

As Davies (2009, p. 101) maintains, however, the main metaphysical obstacle faced by Dodd in his project of explaining how musical works qua types are audible is not the doctrine that *abstracta* are causally inert, but the fact that, according to Dodd’s own construal of types, these entities do not bear *acoustic properties*—namely, that properties like being in a certain key, or featuring a certain chord or rhythmic figure.

Like Wolterstorff (1980, p. 61), Dodd adheres to the doctrine of analogical predication, which states that predicates denoting acoustic properties can never be applied univocally to both musical works and their performances (2007, pp. 83–85). Schematically, this doctrine has it that, if the predicate ‘is *F*’ denotes an acoustic property, and it may be correctly applied to both a musical work *w* and any one of its correct performances, then ‘is *F*’ is applied analogically. The property attributed to performances of *w* by means of an application of ‘is *F*’ is the acoustic property of being *F*, but the property attributed to *w* itself is the normative property of being such that nothing can be a correct performance of *w* if it is not *F*. The predicate ‘begins with a C-sharp major’ chord, for instance, may be correctly applied to Sibelius’s *Finlandia* (1899) and any one of its correct performances;

5 For further literature on the question whether there are causally efficacious *abstracta*, see Walters (2013); Juvshik (2020), Aliyev (2020, 2022).

however, the properties thereby attributed to them are distinct. The property attributed to performances is the acoustic one of beginning with a C-sharp minor chord; the property attributed to *Finlandia* is its normative counterpart: being such that nothing can be a correct performance of *Finlandia* if it does not start with a C-sharp minor chord.

The motivation behind this doctrine is the conviction that types, and thus musical works, are unstructured; the upshot is that musical works do not bear acoustic properties at all, but only the associated normative ones. They are, then, not types *simpliciter*, but *normative* types. If this is the case, though, then the following question arises: how do we listen to musical works if they possess no acoustic properties?

Dodd responds by saying that our locutions concerning audition are ambiguous (2007, pp. 92–94). Acoustic properties, on Dodd's view, are possessed by sound events, which are *directly* audible; but several bona fide objects of audition are not sound events: birds, bells, and musical works, for instance, do not belong to this ontological category, so there must be a second sense in which things may be said to be audible.

Dodd, we have seen, believes that not only events, but also objects, may be rightly said to be causally efficacious: an object, he says, counts as causally efficacious when it bears an *appropriate relation* to an event that causes an effect. Later on, Dodd claims that, when an object holds this kind of relation to a sound event, this object may be said to be audible in a *derivative* sense. As I said earlier, Dodd thinks that the relevant relation holds between an object and an event when the object is a type, and the event is one of its tokens. Performances are sound events, and they are tokens of musical works. Thus, when a musical work *w* is performed, a sound event comes into existence that *w* is appropriately related to and, hence, *w* can be said to be derivatively audible. On Dodd's view, then, musical works are audible, but not in the same sense as performances. According to Dodd, however, this is unimportant: the sense in which musical works are audible is the sense in which many familiar objects of audition are audible. As I noted earlier, birds and bells, for instance, are not sound events and, consequently, not directly audible, but audible only in the sense that they are appropriately related to tweeting and chiming events.

A well-known test for ambiguity, devised by Zwicky and Sadock (1975), tells against Dodd's contention that our locutions concerning audition are ambiguous. When one single occurrence of a polysemic expression has multiple senses, we encounter a zeugma. Consider:

12. The colour and the feathers were light.

In (12), one single occurrence of 'light' has two distinct senses, and the fact that (12) is, thus, a zeugma strikes us as obvious: there is something odd about it that cannot go unnoticed. Now contrast (12) with (13):

13. I spent the morning listening to Bach's Brandenburg Concertos and a bird tweeting.

Tweeting events are sound events and, hence, according to Dodd's theory, directly audible; musical works, on the other hand, are only derivatively so. It follows that, on his view, the one occurrence of the verb 'to hear' in (13) has two different senses, corresponding to direct and derivative audition respectively. If Dodd were right, we

could expect (13) to have a zeugmatic character. But (13) does not have a zeugmatic character. There is nothing odd about it, nor anything whatsoever that suggests that the one occurrence of the verb 'to hear' that figures in it does indeed possess various senses.

Whether this test for ambiguity is accurate is a controversial matter. Predelli (2011, p. 276), and Ostertag (2012, p. 366) afterwards, appealed to it to try to disprove the ambiguities posited by the doctrine of analogical predication. Dodd and Letts (2017, pp. 252–253), however, argue that they both fail. In order to do so, they adduce Sennett's claim (2021) that some ambiguities might be too subtle for the folk to perceive them. On Sennett's view, when one single occurrence of a very subtly ambiguous expression has multiple senses, the sentences where it figures in a zeugmatic position do not acquire a zeugmatic tone: they do not appear odd, nor striking in any way. Sennett adduced the following example to substantiate his case:

14. Toronto and numbers exist.

Sentence (14), Sennett notes, does not appear zeugmatic to ordinary speakers of English; but ontological pluralists maintain that the one occurrence of the verb 'to exist' in (14) has two distinct senses. Some ambiguous expressions, he concludes, will not pass Zwicky's and Sadock's ambiguity test.

Nevertheless, Ostertag (2012, pp. 372–373) rightly points out that ontological pluralism is highly contentious and, therefore, there is no certainty whatsoever that the verb 'to exist' is polysemous. The reason why (14) does not appear zeugmatic, then, may well be that it is not zeugmatic. If this is the case, then there is no reason to accept Sennett's (2021) claim that Zwicky's and Sadock's ambiguity test is unreliable. The truth of this claim, Ostertag contends, cannot be granted until an uncontroversial ambiguity is found that fails to test positive.

Dodd and Letts (2017, p. 243) think that Ostertag's position is problematic. He maintains, we have seen, that the reliability of Zwicky's and Sadock's ambiguity test cannot be challenged on the basis of philosophical convictions like ontological pluralism. Thus, Ostertag refuses to contemplate the possibility that philosophical enquiry could uncover ambiguities not uncovered by this test. According to Dodd and Letts, Ostertag's position embodies, therefore, the very dubious doctrine of *linguistic deferentialism*, which states linguistic claims have a decisive bearing on philosophical disputes, and are, by default, better justified than philosophical hypotheses.⁶

Afterwards, Dodd and Letts (2017, p. 253) admit that a failure in Zwicky's and Sadock's test provides 'some evidence' against the existence of the relevant ambiguity, and suggest that such evidence may be superseded by philosophical considerations. On pain of inconsistency, then, Dodd would have to admit that the fact that (14) fails the test tells against his contention that our locutions concerning audibility are ambiguous. He could insist that this result may be outweighed by philosophical considerations, but I do not think that there are any such considerations for Dodd to adduce.

Kripke (1977, p. 268) proposes two tests for accepting the existence of an ambiguity that differ from Zwicky's and Sadock's. The first is empirical. We can reasonably expect

6 Daly and Liggins (2011) discuss and criticize this doctrine.

ambiguous expressions to be disambiguated in languages that are unrelated to English; that is to say, we could expect that the distinct senses of an ambiguous expression are unambiguously associated with distinct expressions in a language different from English. If no such language can be found, then the expression in question fails the test. If Dodd wanted his proposed ambiguity to pass this test, the burden would be on him to show us that there is at least one language comprising two disjoint sets of locution concerning audition and corresponding, respectively, to audition of sound events and all the other audible properties. Until then, there are no motivations for accepting his contention.

The second of Kripke's tests is more interesting. He notes that positing ambiguities allows escaping theoretical trouble illegitimately, for any putative counterexample to any hypothesis may be dismissed by claiming that some key term is used in a special sense, different from its use in the relevant hypothesis. Consequently, Kripke maintains, we should counsel a policy of caution: do not posit an ambiguity unless you are really forced to (1997, p. 269). In sum: in order to reduce the risk of incurring illegitimacy to the bare minimum, an expression may be counted as ambiguous just in case we are inescapably compelled to maintain that it is ambiguous. This claim seems to me to be solidly grounded in the principles that regulate theoretical enquiry: it amounts to the idea that senses should not be multiplied beyond necessity, that they should be multiplied only when there is a compelling reason to do so. Kripke's second test, therefore, is founded on the principle of parsimony and the principle of sufficient reason, and hence appears to be highly plausible. Let us, therefore, investigate what it can tell us about Dodd's ambiguity theory.

If hearing consists in perceiving the acoustic properties of an entity with our auditory organs, then the question arises why we often speak of hearing things that undoubtedly lack acoustic properties, like birds and bells. This question may be answered in Dodd's way: maybe there is another sense in which we hear things. But the alternative is also available to us to maintain that we never *really* claim to listen to objects that lack acoustic properties; that, typically, our claims about listening to these objects are to be understood as metonymical assertions that things are heard that do possess acoustic properties: sound events. On this view, ordinary utterances of (15), for instance, express (16):

15. I heard bells.

16. I heard bells chiming.

Importantly, this metonymy theory is independently motivated: it seems that a speaker in their right mind would never assert (15) and deny that they meant to express (16). The metonymy theory, then, is not only adequate to account for the data that we often speak about listening to objects that lack acoustic properties: it is also supported by our intuitions.

If the metonymy theory is available, then Dodd is not forced to commit to the hypothesis that our locutions concerning audition are ambiguous. These locutions, therefore, fail Kripke's second test for ambiguity. Dodd could, of course, simply refuse to comply with the results of this test, but given that it is grounded on the principles of parsimony and sufficient reason, such a move would be rather reckless. Importantly, moreover, it is unclear why it should persuade *us* to adhere to Dodd's ambiguity theory—even if Dodd refuses

the results of Kripke's tests, the fact is that he has presented us with no motive to prefer his theory over the metonymical alternative. As I noted earlier, he himself must admit that there is evidence against his theory—namely, that locutions concerning audition fail Zwicky's and Sadock's test. If this is the case, and I am right that the metonymy theory is independently motivated, then it is clear what the theoretical balance tips in favour of.

I have shown that Dodd's project of establishing that musical works qua types are audible faces two obstacles: the doctrine that *abstracta* are causally inert, and the fact that types—according to Dodd's own construal thereof—bear no acoustic properties. I argued that there is no easy way for him to overcome either of these obstacles. In order to overcome the first, he must uphold the wholly unmotivated hypothesis that musical works are causally related to our auditory experiences; in order to overcome the second, he must opt for his ambiguity theory instead of a theory that, at this point, appears visibly superior. Overcoming the obstacles in question, in sum, comes for Dodd at a very high meta-theoretical cost. In any case, moreover, it is unclear why *we* should be persuaded to follow him.

2. The Ideal Ontology

In this section, I will discuss a hypothetical ideal theory of the metaphysics of musical works. This theory, like Dodd's, identifies musical works with a peculiar kind of type that is tokened by sound events. However, by stipulation, its advocates face neither of the obstacles faced by Dodd in his attempt to establish that musical works are audible. The entities that musical works are identified with on this ideal theory, despite belonging to the realm of the abstract, have been proved to possess causal powers and acoustic properties. In particular, a musical work, according to this theory, bears all and only those acoustic properties that must be borne by any one of its correct performances. In what follows, I will contend that, even if musical works are identified with entities of this ideal sort, the hypothesis that they are audible will not be supported.

It is undoubtedly hard to imagine how types of any kind could bear acoustic properties, and, perhaps there are no such entities at all. For the sake of the argument, let us, suppose that they exist. Beethoven's *Pathétique* (1798) sonata begins with a C minor chord. On the ideal theory, it *really* begins with a C minor chord. All correct performances of the *Pathétique*, too, begin with a C minor chord; but there is an important disanalogy between the initial chord of the sonata and that of its performances.

Clearly, the initial chord of Brendel's 1975 performance of Beethoven's *Pathétique* has a maximally determinate duration, but the initial chord of the sonata itself, by contrast, does not—there is no real number x such that the initial chord of the sonata lasts x seconds. On our ideal theory, musical works bear all and only those acoustic properties that must be borne by each one of their correct performances. Hence, if there were a real number x such that the initial chord of the *Pathétique* sonata lasted x seconds, the initial chord of each of its correct performances would last x seconds, but that is not the case. The initial chord of Brendel's performance and that of Horowitz's 1963 performance have patently different durations, but neither of them is incorrect.

The initial chord of Brendel's performance has a maximally determinate pitch, while the initial chord of the *Pathétique* itself does not. If it did, then the pitch of the initial chord

of each one of the correct performances of this sonata would be the same as the pitch of all the others; but it is not. The *Pathétique* sonata may be correctly performed, roughly, in A440, A441, A442, A443, and A444. Similarly, the initial chord of Brendel's performance has a maximally determinate volume, but the initial chord of the sonata itself does not. If it did, then the initial chord of each one of the correct performances of the sonata would have exactly the same volume as all the others, but that is not the case. The initial chord of Brendel's performance, and that of Ashkenazy's 1997 performance, have noticeably different volumes, and neither of them is incorrect.

There is nothing special about the initial chord of Beethoven's *Pathétique*, though. Beethoven's authoritative score of this sonata features a tempo indication for its first movement: 'Grave'. It also states unequivocally that the initial chord of the sonata is a *fortepiano* C minor chord. And yet, we have seen, the initial chords of its various correct performances vary somewhat with regard to duration, pitch, and volume; thus, the initial chord of the *Pathétique* itself has no maximally determinate volume, pitch, or duration. But the remainder of the authoritative score of this sonata is not any more specific in its remarks, nor are the scores of most other musical works. Ordinarily, scores do not constrain the interpretative freedom of performers more than does the score of Beethoven's *Pathétique*. Moreover, interpretative conventions, like scores, do not—or at least not usually—determine that all of the correct performances of a given musical work must be characterized by the very same durations, pitches, or volumes. Hence, musical works, in very general terms, do not possess maximally determinate volumes, pitches, or durations.

This is problematic for those who wish to maintain that musical works are audible. The things that stimulate our auditory organs are sounds, and every single sound, by virtue of its mere physical constitution, possesses maximally determinate acoustic properties. Every time we hear a sound, it has a maximally determinate duration, a maximally determinate pitch, and a maximally determinate volume—even if we cannot tell what exactly they are. If this is the case, however, then musical works, which possess no maximally determinate acoustic properties, are not the kind of thing that can be perceived with our auditory organs. The first chord of Beethoven's *Pathétique*, for instance, is a *fortepiano* C minor chord that lasts the equivalent of five semi-quavers and a half; however, it has no maximally determinate volume, pitch, nor duration, and there is no such thing as listening to a sound with no maximally determinate volume, pitch, or duration.

There are two independent replies that the advocates of the audibility of musical works could advance at this point. The first is that I am wrong to maintain that musical works lack maximally determinate acoustic properties. I derived this claim from two premises: (i) the various correct performances of a musical work may vary somewhat with regard to duration, pitch, and volume; and (ii) a musical work bears all and only those properties that must be borne by all of its correct performances. Premise (i) states merely an easily empirically verifiable fact; but perhaps premise (ii) is false and, hence, my argument for the conclusion that musical works lack determinate acoustic properties is unsound. Whether premise (ii) is false or not is, in reality, unimportant. Ultimately, the burden is on whoever maintains that musical works have maximally determinate acoustic

properties to provide a principled response to the question of what these properties are. What is the maximally determinate duration of the initial chord of Beethoven's *Pathétique*, for instance? What is its maximally determinate volume? I suspect that none of these questions can be answered with plausibility.

The second possible rejoinder to my argument says that musical works are *audible*, in some important sense at least, even if they lack maximally determinate acoustic properties. The picture that I have been sketching of the properties that characterize a musical work w and those that must be possessed by any one of its correct performances is the following: the properties that must be possessed by any one of the correct performances of w are *determinates of the determinables* that characterize w . My opponent, then, could say something along the following lines: plausibly, perception of a determinate reaches through to its determinable. After all, it would be severely counter-intuitive to maintain that, when one hears the C minor chord with which Brendel starts his performance of the *Pathétique*, with its maximally determinate pitch, one cannot rightly claim to have heard a C minor chord *simpliciter*. If this is right, then, when we hear the determinates that characterize a performance of a musical work, audition reaches through to the determinables that characterize the musical work it is a performance of.

If this is correct, then it seems that Dodd was on the right track when he proposed that perception functions very much like Quine's deferred ostension: perception passes through from any one of the tokens of a given type to the type that stands behind it. This view, however, seems to me to be deeply confused. There is no such thing as *the type* that stands behind a token; the definite description that is supposed to denote it uniquely has, in fact, no unique denotation. Let us imagine Quine's letter-token alpha, and let us suppose that it was written with white chalk on a blackboard. The object that we are imagining is not a token of the letter type alpha only: it is also a token of the white-alpha type; of the light-coloured-alpha type; of the alpha-written-with-chalk type; of the alpha-written-on-a-blackboard type; of the Greek-letter type; and many, many more. In Dodd's words, all of these types stand behind Quine's letter-token.⁷

Performances are not special at all in this regard; they, too, instantiate multiple types. Consider, for instance, Ashkenazy's performance of Beethoven's *Pathétique*. Let S be the set of all possible correct performances of this sonata. Additionally, let S' be the proper subset of S that contains Ashkenazy's 1997 performance, and all of those possible performances whose initial chord is comparable with Ashkenazy's in its loudness. Finally, let S'' be the union of S and the set of all possible sound events that failed to constitute correct performances of the *Pathétique* because they were initiated with a chord too loud or too faint to count as *fortepiano*. Clearly, the *Pathétique* is the type tokened by all and only the members of S . Let T be the type tokened by all and only the members of S' ; and T' , the type tokened by all and only the members of S'' . Then Ashkenazy's performance is a token not only of the *Pathétique*, but of T and T' as well. Performances, then, token a plurality of types and, if this is the case, the theory that audition passes through from a performance to *the type* that stands behind it is plainly ill-formulated.

7 Cohen (2022) has a neat explanation of how Quine's deferred ostension is possible even when his letter-token alpha instantiates multiple types.

If there is anything like *deferred audition*, it must consist of audition passing from a performance to the multiple types that stand behind it; but is there such a thing? Earlier I stated that, on the theory that we are considering, a musical type bears all and only those acoustic properties that are shared by the totality of its tokens. The *Pathétique*, then, is characterized by beginning with a fortepiano C minor chord, for all of its correctly formed tokens start with a fortepiano C minor chord. *T*, whose tokens all bear the property beginning with a frankly sonorous C minor chord, is characterized by this property as well. Now, all of the tokens of *T'* begin in C minor, but the volume of the initial chord of the various tokens of *T'* varies greatly. Hence, all that can be said about *T'* is that it is characterized by beginning with a C minor chord of no particular volume—a C minor chord *simpliciter*. It follows that the *Pathétique*, *T* and *T'* differ in their acoustic qualities. If we hear all of them when we hear Ashkenazy's 1997 performance of the *Pathétique*, it follows that, when we hear this performance, we hear a multiplicity of things bearing distinct acoustic qualities—or, to put it more bluntly, a multiplicity of distinct things. That is patently not what we experience, however, when we hear Ashkenazy's performance. Hearing Ashkenazy's performance is nothing like hearing several distinct pieces of music at once and, additionally, the idea that we hear multiple things when we hear Ashkenazy's performance becomes even more bewildering when we remind ourselves that the *Pathétique*, *T* and *T'* are only three elements of the sheer variety of types that the performance in question instantiates and, thus, three elements of the sheer variety of things that deferred audition should reach through to when hearing Ashkenazy's performance. Moreover, Beethoven composed a musical work that begins with a fortepiano C minor chord; he did not compose a musical work beginning with a frankly sonorous C minor chord, nor one beginning with a C minor chord *simpliciter*. If we hear *T* and *T'* besides the *Pathétique* when we hear Ashkenazy's performance, we hear this performance; we hear a number of things that Beethoven did not compose—but that, of course, is intuitively not the case at all.

In order to vindicate our intuitions, the advocate of deferred audition could contend, on some grounds or others, that the reason why we do not seem to hear several different things when we hear Ashkenazy's performance is that the *Pathétique*, *T* and *T'* all sound, to us, exactly the same as one another, despite differing in their acoustic properties. Surely, though, that cannot be the case. Those who think that musical works are eternally existing universal entities believe that composition is an act of selection (see, e.g. Dodd, 2007, pp. 112–121; Kivy, 1983; 1987). On this view, the fact that Beethoven wrote '*fp*' at the very beginning of his authoritative score was part of the process of singling out the *Pathétique* from among all the other musical types that exist. In particular, he thereby chose the *Pathétique* in place of *T* and *T'*. If the *Pathétique*, *T* and *T'* sound the same as one another, however, then that authorial act was entirely futile. There was no reason to choose the *Pathétique* instead of the other types, nor to make a choice at all, because all of the types in question sound exactly the same. I take it, though, that this result is unacceptable: there was definitely a point in Beethoven's decision to write '*fp*'.

Earlier in this section, I submitted that if musical works are audible, they must be the objects of deferred audition. Every time that we hear a sound, it has a maximally determinate pitch, a maximally determinate volume, and a maximally determinate duration;

however, musical works have no maximally determinate acoustic properties. I then suggested that if musical works are audible, it might be because audition passes through from the determinates borne by a performance to the determinables that characterize the type that stands behind it. Nevertheless, I argued that this idea is ill-formulated. Perhaps what should be said, instead, is that audition reaches through from a performance to the various types that stand behind it. But, as I have just shown, this hypothesis delivers untenable results. If my arguments in this section are sound, then not even the ideal ontology fosters a construal of musical works as audible. I believe, consequently, the prospects of success for this construal are rather disheartening.

3. Metonymy

In this section, I will outline a response to the audibility problem that may be adopted by musical ontologists who believe that the project of construing musical works as audible is daunting, or not very promising. In what follows, I will assume that musical works are repeatable objects; however, I will not commit to any specific view about their ontological status, nor shall I take any stand relative to the question of whether musical works possess causal powers or acoustic properties or not. My proposal, then, may be adopted by anyone, regardless of their beliefs concerning the metaphysical nature of musical works.

In §1, I argued that the sentences where we seem to say that birds and bells are listened to may be understood as metonymical assertions that certain *sound events* are heard. Similarly, I believe that our sentences about listening to musical works must be understood as metonymical statements concerning performances. This view has it that (17), for instance, is metonymical for (18):

17. I heard Sibelius's *Finlandia*.

18. I heard a performance of Sibelius's *Finlandia*.

I think that it is very plausible that we often speak truly about musical works—that we can correctly say, for instance, that they were created by composers, that their structure corresponds to that of a certain musical form, that they are characteristic of a certain musical tradition, and so on. But, on certain occasions, the conclusion seems inevitable that we only *appear* to speak about them, that, sometimes, we speak metonymically about musical works in order to make assertions that concern their performances. Telling exactly which sentences are about musical works and which are in reality about performances falls outside the scope of this paper. I wish merely to suggest that sentences about hearing music concern performances rather than musical works. Suppose that *a*, *b*, and *c* attend a performance of Beethoven's triple concerto and Tchaikovsky's first piano concerto. While they observe the soloists attentively, it becomes apparent that the pianist's technique is quite sloppy, whereas the violinist is remarkably good. Beethoven's triple concerto is brought to a conclusion with a dramatic crescendo; no encore is played, and *a*, *b*, and *c* leave the auditorium. Then each one of them utters one of the following three sentences:

19. I have never seen such careless piano playing as that in Tchaikovsky's *cadenza*.

- 20. The violinist was the best part of the triple concerto.
- 21. The crescendo at the very end of the triple concerto was spectacular.

In the hypothetical scenario that I have described, (19)–(21) are all perfectly felicitous and, intuitively, they are uttered truly. Taken literally, however, (19)–(21) concern Beethoven's and Tchaikovsky's musical works—and if they really concern these works, then they are all utterly false. Clearly, Tchaikovsky's concerto does not feature a passage of careless piano playing, and no particular violinist, nor their playing, is a part of Beethoven's triple concerto. Moreover, the authoritative scores of Beethoven's triple concerto say nothing about a crescendo in its final passages, so there is surely no spectacular one at all. If we want to maintain, in accordance with our intuitions, that (19)–(21) were uttered truly, we must regard them as metonymical for (22)–(24):

- 22. I have never seen such careless piano playing as that in the performance of Tchaikovsky's *cadenza*.
- 23. The violinist was the best part of the performance of the triple concerto.
- 24. The crescendo at the very end of the performance of the triple concerto was spectacular.

It follows that it is uncontroversial that we sometimes talk metonymically about musical works in order to make claims about their performances. Our tendency to economize speech suffices to explain this practice: (19)–(21) are visibly more succinct than (22)–(24). My present contention is merely that our talk about listening to musical works is a further instance of this undoubtedly pervasive phenomenon. My contention, therefore, is substantially supported by our actual linguistic practices.

An obvious objection to this proposal says that it constitutes a distasteful error theory; my response to this objection is that it is simply wrong. The point that I am urging is not that any one of our utterances is untrue: it is merely that some of them—such as the ones that seem to say that musical works are heard—must not be interpreted at face value. Moreover, the contention that these utterances must not be interpreted at face value is not pre-theoretically counter-intuitive at all: upon a little reflection, any layman would happily accept that every time that we engage in the activity of hearing music, we hear either an improvisation or a performance of a musical work—that there are no other pieces of music that we ever listen to. Accordingly, on the face of the question of whether they have heard anything of Beethoven's ninth symphony that was not a performance thereof, they would respond that they have not.

Solving the audibility problem consists in answering the question of how musical works are appreciated by means of audition if they are abstract. I have argued that musical works are not audible. If this is right, then how are they appreciated by means of audition? Suppose that you attend a piano recital where a work will be performed that you have never heard before. Suppose that you have a strong reason to believe that the work in question may be indeterministic: you have been informed that roughly half of the works of the composer are indeterministic—they consist of very simple themes or motives, and an invitation to performers to develop them into complex pieces. You hear the pianist's performance attentively, and feel very pleased when it is over: you have enjoyed the recital very much. However, you are also very confused. You are still ignorant of whether the

work performed is indeterministic or not, and, consequently, you do not know whether the beautiful music you have heard is an achievement of the composer or the performer. You cannot decide whether the work performed is worthy of praise or not.

Most of the time, our interaction with performances of repeatable works is not like this: most of the time, we hear performances not with the conviction that the music that we hear was probably devised, to a significant extent, by the performers themselves—but under the assumption that, generally, performers play the sounds and rhythmic figures that they play because they must do so in order to produce an occurrence of the repeatable object that the relevant musical work is identical to, for these sounds and rhythmic figures *correspond* to the properties that characterize the work performed.⁸ I think that we appreciate musical works by means of audition because we possess this simple piece of knowledge. Thanks to it, hearing a performance of a musical work *w* generally sanctions robust conjectures about the properties that characterize the object that the composer created when they composed *w*.

On the view that I advocate, then, appreciating a musical work by means of audition involves knowledge about compositional and performative practices. This suggests that my view goes against the widely held doctrine that aesthetic appreciation is non-inferential; however, I do not think that this is too detrimental to my contentions. For one thing, the aforementioned doctrine has been questioned on solid grounds (see, e.g. Dorsch, 2013); and, for another, there are weighty reasons to believe that aesthetic appreciation is inferential in some cases. Suppose that you are hearing a piano performance and that, at the highest point of its climatic passage, the performer plays a chord that you find absolutely astounding. Consequently, you judge the climax of the piece performed to be brilliant. Unbeknownst to you, however, the performer made a mistake; had they played the right chord, you would have found that the passage is wholly unremarkable. The reason why you erred in believing that the relevant passage was brilliant has nothing to do with your perceptual abilities, though. You erred because you mistakenly believed that the pianist was playing the sounds that corresponded to the musical work performed. To my mind, the existence of errors of this kind in aesthetic judgement suggests that there are inferential processes involved in some instances of aesthetic appreciation. Finally, in order to do justice to our conviction that we appreciate music directly when we hear a performance, we must simply remember there is, indeed, a piece of music that is plausibly appreciated non-inferentially when we hear a performance—namely, the performance itself. Some knowledge may be needed in order to judge some of the technical qualities of a performance, but the thinnest of its aesthetic properties may well require no knowledge to be appreciated.

If my arguments in this section are sound, then our discourses relative to the audition of music, as well as the audibility problem, can both be approached in a promising way without supposing that musical works are audible.

8 Note that this claim is not committed to the truth or the falsity of the hypothesis that musical works bear acoustic properties. Those who hold this hypothesis may understand the relation of correspondence that I just mentioned as the relation of identity; those who reject the hypothesis in question may understand correspondence as the relation that holds between an acoustic property and the normative property that is associated with it.

4. Conclusion

In §1, I submitted that Dodd's attempt to solve the audibility problem faces two obstacles of metaphysical order, and there seems to be no promising way for him to overcome them. In §2, I argued that not even the ideal ontology fosters the project of construing musical works as audible. I thus concluded that the prospects of success for this project are disheartening. Accordingly, in §3, I contended that the sentences where we seem to say that musical works are heard are best understood as metonymical assertions about performances, and that the audibility problem may be satisfactorily solved without attributing audibility to musical works.

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